



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/522,474 | 08/22/2005 | Klaus Kienzle | 2002P11964WOUS | 1186 |

7590 11/14/2007
Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

| |
|----------|
| EXAMINER |
|----------|

KAO, JUTAI

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2616

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

11/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,474

Applicant(s)

KIENZLE, KLAUS

Examiner

Ju-Tai Kao

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 01/26/2005.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 14 objected to because of the following informalities:
grammatical/typographical errors.

Claim 14 recites "wherein the functional property information and the topological are assigned to the service". It is believed that the underlined section is meant to be the topological arrangement information.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 23 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 23 and 24 claims "A control program", which is not a tangible object.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

Art Unit: 2616

applicant regards as the invention. Claim 23 recites the phrase "the control program adapted for...", wherein the term "adapted" is indefinite in scope. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 11-12, 19-21 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Gubbi (US 2002/0133589).

Gubbi discloses a dynamic bandwidth negotiation scheme for wireless computer networks including the following features.

Regarding claim 11, a method for providing a network element (see "client device" or "master device" recited in paragraph [0030]) in a communication system (see communication system shown in Fig. 1), comprising: determining if the network element is at least partially loaded with respect to a provided service (see "Each client device of a subnet is allowed to collect statistics for the required bandwidth of each of its streams" recited in paragraph [0030], wherein the bandwidth required by the streams represent the load); stipulating a maximum load threshold value for the network element (see

Art Unit: 2616

“currently allocated bandwidths” recited in paragraph [0030]); checking if a service provision request (see “averaged bandwidth requirement” of the streams recited in paragraph [0030]) exceeds the stipulated value (see “compares its averaged bandwidth requirement within each priority class to its currently allocated bandwidths...if the required bandwidth exceeds the currently allocated bandwidth...” recited in paragraph [0030]); initiating a network element provisioning when the check indicates that the stipulated value is exceeding (see “if the required bandwidth exceeds the currently allocated bandwidth, a request for more bandwidth is sent to the master” recited in paragraph [0030], the request initiates the possible provisioning of more bandwidth, as shown in paragraph [0031] or block 88 and 92 of Fig. 4).

Regarding claim 12, wherein the step of stipulating the threshold occurs prior to the determining step (see “currently allocated bandwidths (e.g., that they may be initially negotiated when the device joins the subnet” as recited in paragraph [0030], which is prior to the determining step explained in the rejection applied to claim 11).

Regarding claim 19, wherein a performance measurement value (see “collect statistics for the required bandwidth of each of its streams” recited in paragraph [0030]) exceeding the stipulated value (see “if the required bandwidth exceeds the currently allocated bandwidth” recited in paragraph [0030]) determines the loading of the network element (“request for more bandwidth is sent to the master” recited in paragraph [0030], which results in an increased bandwidth, or increased loading, when the request is accepted).

Regarding claim 20, wherein the network elements provisioning is initiated by a work instruction (see request for more bandwidth is sent to the master" recited in paragraph [0030], and that the request initiates the possible provisioning of more bandwidth, as shown in paragraph [0031] or block 88 and 92 of Fig. 4) to a network order selected from the group consisting of network planning, network operating system and combination thereof (see operations of network master shown in Fig. 4, which shows that the master device is a network planning/operating system in charge of operating and planning the allocation of bandwidths).

Regarding claim 21, wherein the network element provisioning initiated by an automatic installation of the respective network element (see "allocated bandwidths...that may be initially negotiated when the device joins the subnet" recited in paragraph [0030], that is, the bandwidth is provisioned to the network element, or client device, when the client device joins, or being installed, to the subnet).

Regarding claim 23, a control program for a communication management device of a communication network and monitoring system (see system in Fig. 1), the control program adapted for loading into a working memory of a data processing system assigned to the communication management device (obvious to implement in software), comprising: a first code section for determining if the network element is at least partially loaded with respect to a provided service (see "Each client device of a subnet is allowed to collect statistics for the required bandwidth of each of its streams" recited in paragraph [0030], wherein the bandwidth required by the streams represent the load); a second code section for stipulating a maximum load threshold value for the network

element (see “currently allocated bandwidths” recited in paragraph [0030]); a third code section for checking if a service provision request (see “averaged bandwidth requirement” of the streams recited in paragraph [0030]) exceeds the stipulated value (see “compares its averaged bandwidth requirement within each priority class to its currently allocated bandwidths...if the required bandwidth exceeds the currently allocated bandwidth...” recited in paragraph [0030]); a fourth code section for initiating a network element provisioning when the check indicates that the stipulated value is exceeding (see “if the required bandwidth exceeds the currently allocated bandwidth, a request for more bandwidth is sent to the master” recited in paragraph [0030], the request initiates the possible provisioning of more bandwidth, as shown in paragraph [0031] or block 88 and 92 of Fig. 4).

Regarding claim 24, wherein a code section is selected from the group consisting of first code section, second code section, third code section, forth code section, and combinations thereof (all code sections explained in the rejection applied to claim 23).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Gubbi (US 2002/0133589) in view of Twata (US 2006/0155873).

Gubbi discloses the claimed limitations as shown in the above paragraphs.

Gubbi also discloses the following features.

Regarding claim 13, wherein a functional property information of a network element (see Table 1 recited in paragraph [0035], which includes bandwidth information of each device) with respect to a provision of service (the allocated bandwidth shown in Fig. 1) are stored in a network element database (see "the master device maintains a table listing...as shown in Table 1" recited in paragraph [0035]).

Regarding claim 14, wherein the functional property information are assigned to the service (see "allocated bandwidth" in Table 1).

Regarding claim 15, wherein a provision of service load value (the allocated bandwidth) for the network element is stored (see "Each device compares...to its currently allocated bandwidth" recited in paragraph [0030], or see allocated bandwidth in Table 1 recited in paragraph [0035]).

Regarding claim 16, wherein the provision of service load value (see allocated/required bandwidth shown in Table 1 in paragraph [0035]) determines the network element load (the allocated/required bandwidth represents the network element bandwidth load).

Regarding claim 17, wherein the load threshold value (see "allocated bandwidth" shown in Table 1 in paragraph [0035]) is stored in the network element database ("table listing" in paragraph [0035]).

Regarding claim 18, wherein a service level agreement information relevant to a provision of service (see priority level column in Table 1 in paragraph [0035]) is stored in the network element database ("table listing" in paragraph [0035]).

Gubbi does not disclose the following features: regarding claim 13, wherein a topological arrangement information of a network element is also stored in a network element database; regarding claim 14, wherein the topological arrangement information is also assigned to the service; regarding claim 15, wherein the value is stored in the network element.

Twata discloses a link state routing technique including the following features.

Regarding claim 13, wherein a functional property information (see link resource information memory 31 in Fig. 1) and a topological arrangement information (see path topology memory 321 in Fig. 1) of a network element (see link stat routing communication device shown in Fig. 1) with respect to a provision of service (the allocated link resource, or bandwidth in terms of Gubbi's invention) are stored in a network element database (see memory device 3 in Fig. 1).

Regarding claim 14, wherein the functional property information and the topological information are assigned to the service (see Fig. 2, where in step A2, the precalculated path candidate, representing the topology information is searched, and at step A4, the connection is set up accordingly, thus the topology information is assigned to the connection).

Regarding claim 15, wherein the value is stored in the network element (see Fig. 1, link resource information memory 31; it is determined that device shown in Twata Fig. 1 can be included in both the client device and the master device of Gubbi's invention).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Gubbi using features, as taught by Twata, in order to determine the optimal path (see Twata paragraph [0003]).

9. Claim 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Gubbi (US 2002/0133589) in view of Twata (US 2006/0155873).

Gubbi discloses a dynamic bandwidth negotiation scheme for wireless computer networks including the following features.

Regarding claim 22, a communication network control and monitoring system (see system shown in Fig. 1), comprising: a communication connection management device (see combination of "master device" and "client devices" recited in paragraph [0030]), comprising: a network element (see "client device" or "master device" recited in paragraph [0030]) operating at an at least partial capacity determined with respect to a provision of service (see "Each client device of a subnet is allowed to collect statistics for the required bandwidth of each of its streams" recited in paragraph [0030], wherein the bandwidth required by the streams represent the at least partial capacity), a maximum capacity threshold stipulated for the network element (see "currently allocated bandwidths" recited in paragraph [0030]), a service provision request (see "averaged bandwidth requirement" of the streams recited in paragraph [0030]) that triggers a

comparison of the stipulated threshold with the service provision request (see “compares its averaged bandwidth requirement within each priority class to its currently allocated bandwidths...if the required bandwidth exceeds the currently allocated bandwidth...” recited in paragraph [0030]), an exceeding of the service provision request over the stipulated threshold initiating a provision of the network element (see “if the required bandwidth exceeds the currently allocated bandwidth, a request for more bandwidth is sent to the master” recited in paragraph [0030], the request initiates the possible provisioning of more bandwidth, as shown in paragraph [0031] or block 88 and 92 of Fig. 4); a network element database for storing information describing a functional property of the network element (see Table 1 recited in paragraph [0035], which includes bandwidth information of each device) relevant to the provision of service (the allocated bandwidth shown in Fig. 1) and for assigning the functional property and to the respective service (see “allocated bandwidth” in Table 1, which indicate that the bandwidth is allocated, or assigned to the service); and a monitoring device selected from the group consisting of service quality monitoring device (see “Each client device of a subnet is allowed to collect statistics for the required bandwidth of each of its streams” recited in paragraph [0030], thus monitors the service by continuously collecting the statistics of the streams), error monitoring device, and combination thereof for comparing recorded measured values with the information stored in the network element database for a deviations (see “see “compares its averaged bandwidth requirement within each priority class to its currently allocated bandwidths...If the required bandwidth is less than the allocated bandwidth, then the device releases the

excess bandwidth...if the required bandwidth exceeds the currently allocated bandwidth..." recited in paragraph [0030], where the requirement represents the recorded value while the currently allocated bandwidths represent the stored information) and for generating a message about a service capacity reduction, thereby providing details of the service concerned in the case of the deviation (see "If the required bandwidth is less than the allocated bandwidth, then the device releases the excess bandwidth, for example by sending a notification message to the master device" recited in paragraph [0030]).

Gubbi does not disclose the following features: regarding claim 22, wherein a topological arrangement information of a network element is also stored in a network element database and wherein the topological arrangement information is also assigned to the service; regarding claim 15.

Twata discloses a link state routing technique including the following features.

Regarding claim 22, wherein a functional property information (see link resource information memory 31 in Fig. 1) and a topological arrangement information (see path topology memory 321 in Fig. 1) of a network element (see link stat routing communication device shown in Fig. 1) with respect to a provision of service (the allocated link resource, or bandwidth in terms of Gubbi's invention) are stored in a network element database (see memory device 3 in Fig. 1); and that the functional property information and the topological information are assigned to the service (see Fig. 2, where in step A2, the precalculated path candidate, representing the topology

information is searched, and at step A4, the connection is set up accordingly, thus the topology information is assigned to the connection).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Gubbi using features, as taught by Twata, in order to determine the optimal path (see Twata paragraph [0003]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ju-Tai Kao whose telephone number is (571)272-9719. The examiner can normally be reached on Monday ~Friday 7:30 AM ~5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571)272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

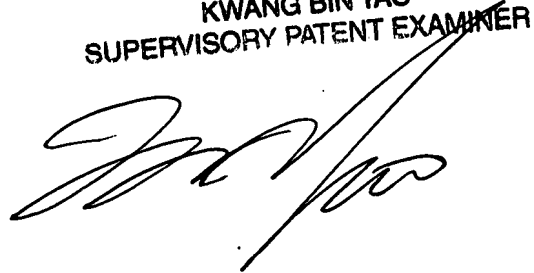
Application/Control Number: 10/522,474
Art Unit: 2616

Page 13

Ju-Tai Kao

A handwritten signature in black ink, appearing to be 'Ju-Tai Kao', written in a cursive style.

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to be 'Kwang Bin Yao', written in a cursive style.